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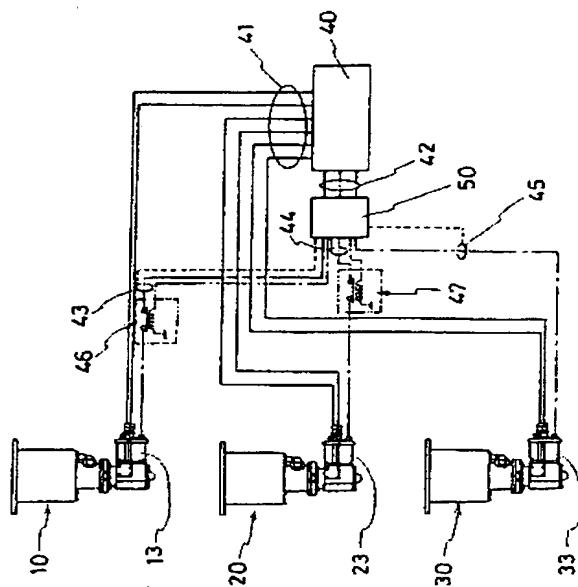
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TITLE : MULTIHEAD CRYOGENIC PUMP



ABSTRACT : PURPOSE: To supply working gas from a compressor to each cryogenic pump evenly by controlling the opening and closing time of each valve mechanism according to a current value passing through the electric motor of each cryogenic pump, in a device where multiple cryogenic pumps are connected to one compressor.

CONSTITUTION: Three cryogenic pumps 10, 20, and 30 connected to one compressor 40 through working gas pipes 41 expands working gas sucked and delivered through a valve mechanism with which an expansion piston reciprocated by electric motors 13, 23, and 33 is interlocked, transfers the produced very low temperature to a cryogenic panel to adsorb molecules in a vessel by the cryogenic panel, thus making the interior of the vessel vacuumed. In this case, current sensors 43 to 45 are provided in a power line 42 connected to the electric motors 13 to 33, and the detected signals are input into a valve opening and closing time controlling circuit 50. The valve mechanisms are so opened and closed that the maximum values of the current delivered to the respective cryogenic pumps 10 to 30 are set at equal intervals.

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